Claims

What is claimed is:

1. A dialog processing system for an uninhabited air vehicle comprising:

a control system that records a state of the UAV;

a recognition unit for recognizing text and analog speech input data;

an interpretation unit dynamically linked to the control system and linked to the recognition unit for interpreting the input data;

a response unit linked to the interpretation unit for producing text or audible analog speech output data;

whereby the interpretation unit utilizes UAV state data to interpret the input data to generate appropriate output data.

2. A dialog processing system as in claim 1 wherein:

the interpretation unit utilizes natural language processing.

3. A dialog processing system as in claim 1 wherein:

the voice interpretation unit comprises a dialog manager that controls which sub-dialog is active by transitioning from one dialog state to another.

4. A dialog processing system as in claim 1 wherein:

the input data is dynamically merged with UAV states selected from the group consisting of current states, past states and predicted states.

5. A dialog processing system as in claim 1 wherein:

the input data is dynamically merged with past, present and predicted states of the UAV.

6. A dialog processing system wherein:

the interpretation unit is limited to a predetermined air traffic control specific vocabulary.

7. A method of dialog processing for an uninhabited air vehicle comprising:

detecting commands;

interpreting the commands in context of dynamic UAV state information; and,

producing responses in accordance with the interpretation of the detected commands.

8. A method of dialog processing as in claim 7 wherein:

natural language processing methods are used to interpret the commands.

9. A method of dialog processing as in claim 7 wherein:

UAV state information includes past, present and predicted states.

10. A method of dialog processing as in claim 7 wherein:

the interpreting step is executed as a finite state machine.

11. A method of dialog processing as in claim 7 wherein:

the commands may initiate from the UAV.

12. A method of dialog processing as in claim 7 wherein:

the commands may initiate from a source external to the UAV.

13. A method of dialog processing as in claim 7 wherein:

the interpreting step uses a grammar to construct dialogs while the UAV is in flight.

14. A method of dialog processing as in claim 13 wherein:

the interpreting step uses a learning process to add unknown commands to a list of possible commands.

15. A method of dialog processing as in claim 7 wherein:

the commands are broken down into sub-commands.

16. A method of dialog processing as in claim 7 wherein:

the interpreting step is limited to dialog states common to air traffic control dialogs.